

DEQ Nonpoint Source Grants: Show You the Money!

Southeast Michigan (SEMI) grants administered by Nonpoint Source staff:

- * Clean Michigan Initiative Nonpoint Source grants - 20 grants totaling \$6.6M
- * Clean Water Act Section 319 and 604(b) grants - 31 grants totaling \$5M
- * Clean Michigan Initiative Clean Water Fund Grants:
 - * Illicit Connections - 27 grants totaling \$6.2M
 - * Remedial Action Plans/Lakewide Management Plans - 6 grants totaling \$3.5M
 - * "Voluntary" Storm Water Permit - 5 grants totaling \$2.1M
 - * Failing On-site Septic Systems - 6 grants totaling \$2.2M

These projects leverage over \$28M in local matching funds.



Statewide:

- * Clean Michigan Initiative Nonpoint Source grants - 79 grants totaling \$31.8M
- * Clean Water Act Section 319 and 604(b) grants - 173 grants totaling \$29M
- * Clean Michigan Initiative Clean Water Fund grants:
 - * Illicit connections grants - 39 grants totaling \$8M
 - * Remedial Action Plans/Lakewide Management Plans - 12 grants totaling \$8M
 - * "Voluntary" Storm Water Permit - 10 grants totaling \$3.6 M
 - * On-site Septic Systems (corrections projects) - 9 grants totaling \$6.9M
 - * High Quality Waters - 17 grants totaling \$6M

All values since CMI started in early 2000 and as of February 2007



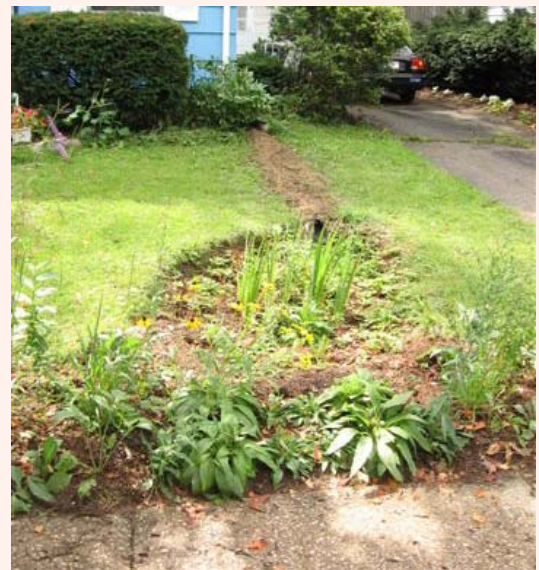
We Put a LID on it!

The Nonpoint Source Program has helped revitalize urban areas while also implementing nonpoint source and storm water controls. In Washtenaw County at the Mallett's Creek Library numerous low impact development (LID) techniques were implemented with federal Nonpoint Source Pollution Control Grant funding, including a green roof and bioinfiltration in the parking lot.



At the Wayne City Hall in Wayne County, a variance in the local ordinance was granted for the reduction in parking lot size. A lower curb--four inches versus the standard six inches--allows for car overhang and shorter parking spaces, reducing the overall parking lot by 10%. Bioretention basins capture and treat parking lot runoff.

Low impact development projects are also being implemented at the smaller scale. Here, a rain garden installed as part of the Allen's Creek Rain Garden project in Washtenaw County.



This low impact development project is in Olsen Park, Washtenaw County. In addition to a rain garden and bioinfiltration practices in the parking lot, this project also included modular pavement.

Piping Up About Your Projects

Sewers are not the subject of most conversations, but as part of managing the Clean Michigan Initiative Clean Water Fund grants, sewer projects were grants Nonpoint Source Program staff administered. The Clean Water Fund included grants to identify and correct illicit connections to storm sewers. Twenty-seven grants totaling \$6.2M were awarded to SEMI communities. One of these was the St. Clair County Illicit Connections project, which identified 168 illicit connections. As a result of this one project, an estimated 14.1M gallons of untreated water will be prevented from entering local waters once all corrections are made.



The Clean Water Fund also included projects to identify failing on-site septic systems and projects to correct failing on-site systems. SEMI communities received three grants to identify failing on-site septic systems and three to correct failing septic systems. One project, the Bridgwater Township Sanitary Sewer System project, eliminated 67 failing on-site septic systems and resulted in the installation of individual grinder pump stations and a centralized waste-water treatment facility with discharge to the Saline River. This one project resulted in annual pollutant load reductions of 126 tons of sediment, 42,148 pounds of phosphorus, and 168,594 pounds of nitrogen.



Making it Like it Used to Be . . . if not Better



Spring 2002: Future Location of Step Pools



Summer 2002: Step Pools during Construction



Fall 2003: Step Pools 1 Year after Construction

The Quail Ridge Drain, located in Northville Township, Wayne County, is a 275-acre watershed. Increased imperviousness resulted in an increase in runoff and bank-full events, causing extreme channel incision and bank failure that extended approximately 800 feet downstream of Eight Mile Road.

The goals of this project were to:

1. Reduce sediment entering downstream waterways, including Swan Harbour Lake and Middle Rouge River.
2. Protect existing property and habitat within the Quail Ridge Subdivision from rapidly eroding stream banks.
3. Protect the health, safety and welfare of the residents of this area.

To meet these goals, channel restoration practices were implemented, including seven pool-riffle structures and three step pools. These practices protect adjacent infrastructure and enhance in-stream habitat while minimizing bank and bed erosion.

Grant Amount: \$ 335,759
Match Funds: \$ 199,210
Total Amount: \$ 534,969



Annual Pollutant Load Reductions:

- 237 tons sediment
- 273 pounds phosphorus
- 544 pounds nitrogen

What's Been Done, What's Left To Finish

As of February 2007, the 79 CMI Nonpoint Source grants alone resulted in annual pollutant load reductions of:

80,114 tons of sediment
78,974 pounds of phosphorus
185,385 pounds of nitrogen

The 80,114 tons of sediment saved as part of these projects would fill 8,020 dump trucks, which, when lined up in a caravan, would extend 32 miles.

The water quality benefits of these CMI Nonpoint Source grants alone has been significant. There are still dozens of nonpoint source projects ongoing in SEMI and statewide. In SEMI:

- * A \$1M project is just starting with the city of Dearborn Heights (Wayne County) to implement greenways and low impact development practices in the North Branch Ecorse Creek watershed.
- * Low Impact Development projects are being implemented in the Middle Clinton River watershed (Macomb County), Pontiac (Oakland County), and as part of the Middle Rouge River Riparian Corridor and Grow Zones Projects (Wayne County).
- * In the Mallett's Creek watershed (Washtenaw County) a \$1.2M project is being implemented that will convert a five-acre, in-line detention facility to an 11-acre storm water treatment wetland to reduce phosphorus loading.

This is the future site of a series of storm water controls along the Detroit River at the Detroit Tri-Centennial Park. The Detroit River Conservancy is implementing a \$1M Nonpoint Source grant in partnership with the DEQ, Michigan Department of Natural Resources, and the city of Detroit.



For more information about Nonpoint Source Projects, see www.michigan.gov/deqnps